ABSTRACT

In a wireless communications system, a base station employs a bit error rate (BER) based Reverse Outer Loop Power Control (ROLPC) technique. The ROLPC technique uses either instantaneous or weakly filtered values of the BER for comparison with a BER

5 target value for adjusting a target signal-to-noise ratio (SNR). The BER target value is varied as a function of a second order statistic (e.g. variance, standard deviation) of the received SNR. In another embodiment, a symbol error count based ROLPC technique uses adaptive SER targets. In particular, a base station uses a 2nd order statistic, e.g., standard deviation (variance), to identify, or act as a signature of, a particular cellular

10 (wireless) communications environment. The base station monitors the standard deviation of the symbol error count of a received signal (transmitted from a mobile station). The target signal-to-noise ratio ($(E_b/N_0)_T$) of this received signal is adjusted as a function of the value of the standard deviation and the adjusted $(E_b/N_0)_T$ target is used to provide power control.

31